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Disability and Secondary Conditions

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Goal

Promote the health of people with disabilities, prevent secondary conditions, and eliminate disparities between people with and without disabilities in the U.S. population.

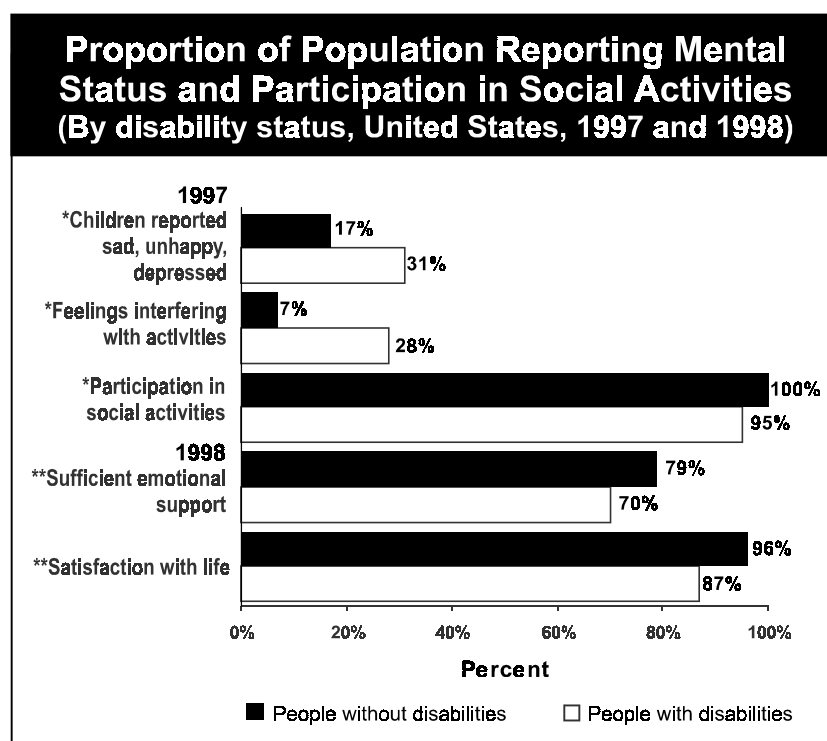
Overview

Because disability status has been traditionally equated with health status, the health and well-being of people with disabilities has been addressed primarily in a medical care, rehabilitation, and long-term care financing context. Four main issues emerge from this contextual approach: the belief that all people with disabilities automatically have poor health; the belief that preventing disabling conditions should be the major focus of public health; the lack of a crosscutting, standard definition of “disability” or “people with disabilities” for public health; and the absence of discussion about the role of the environment in the disabling process. Underemphasis of health promotion and disease prevention activities targeting people with disabilities has increased the occurrence of secondary conditions (medical, social, emotional, family, or community problems that a person with a primary disabling condition likely experiences).

Issues

Understanding these issues will help to clarify the health status of people with disabilities and address the environmental barriers that undermine their health, well-being, and participation in life activities. A broad array of health promotion activities are relevant to all people experiencing a disability, whether they are categorized by racial or ethnic group, gender, and primary conditions or diagnoses, such as major depression, cerebral palsy, diabetes, spinal cord injury, or fetal alcohol syndrome. The activities in themselves, however, do not address the prevention of specific primary conditions. The similarities among people with disabilities are as important as or more important than the differences among clinical diagnostic groups. Caregiver issues have also been considered, as well as environmental barriers. Environmental factors affect the health and well-being of people with disabilities in many ways. For example, weather can hamper wheelchair maneuvers, medical offices and equipment may not be accessible, and shelters or fitness centers may not be staffed or equipped for people with disabilities. Compliance with the Americans with Disabilities Act (ADA) would help overcome some of these barriers. A cross-cutting goal is to eliminate disparities with the nondisabled population.

The *International Classification of Functioning and Disability* (ICIDH-2), developed by the World Health Organization (WHO) with the input of several



Sources: *1997 National Health Interview Survey (NHIS), CDC, NCHS;
 **1998 Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCEH.

nations—including the United States—provides uniform language and a framework for describing functioning, health, and disability status among all people.¹ This framework will clarify definitional issues and include environmental factors.

Trends

It is estimated that 54 million Americans, or nearly 20 percent of the population, currently live with disabilities.² Data for the period 1970 to 1994 suggest that the proportion is increasing.³ The increase in disability among all age groups indicates a growing need for public health programs serving people with disabilities.

Among youth under age 18 years, disability rates increased from 1990 to 1994.³ There was a 33 percent increase in activity limitations among girls, from 4.2 percent to 5.6 percent, and a 40 percent increase in activity limitations among boys, from 5.6 percent to 7.9 percent.

Among adults aged 18 to 44 years, there was a 16 percent increase in activity limitations, from 8.8 percent in 1990 to 10.3 percent in 1994.³ This increase suggests that 3.1 million more people aged 18 to 44 years were limited in 1994 than in 1990.

The absolute number of adults aged 65 years and older with disabilities increased from 26.9 million in 1982 to 34.1 million in 1996. Because the total number of

adults aged 65 years and older increased even faster, the proportion of those with disabilities declined from 24.9 percent in 1982 to 21.3 percent in 1994.³ However, the rise in numbers indicates a growing need for programs and services to serve this older population.

The direct medical and indirect annual costs associated with disability are more than \$300 billion, or 4 percent of the gross domestic product.⁴ This total cost includes \$160 billion in medical care expenditures (1994 dollars) and lost productivity costs approaching \$155 billion.

The health promotion and disease prevention needs of people with disabilities are not nullified because they are born with an impairing condition or have experienced a disease or injury that has long-term consequences.⁵ People with disabilities have increased health concerns and susceptibility to secondary conditions. Having a long-term condition increases the need for health promotion that can be medical, physical, social, emotional, or societal.

People who have activity limitations report having had more days of pain, depression, anxiety, and sleeplessness and fewer days of vitality during the previous month than people not reporting activity limitations.⁶ Increased emotional distress, however, does not arise directly from the person's limitations. The distress is likely to stem from encounters with environmental barriers that reduce the individual's ability to participate in life activities and that undermine physical and emotional health. In view of the increased rates of disability among youth, it is particularly important to target activities and services that address all aspects of health and well-being, including health promotion, preventing secondary conditions, and removing environmental barriers, as well as providing access to medical care. For an older person with a disability, it is important to target worsening coexisting conditions that may intensify and thus threaten general well-being. For example, declining vision combined with declining hearing can greatly impair mobility, nutrition, and fitness.⁷

Disparities

Disability can be viewed as a universal phenomenon everyone experiences at some time.⁸ Disability can also be viewed as nonuniversal or confined to a minority of the population, in that people with disabilities may be less visible, undercounted, and underserved.⁹ As a potentially underserved minority group, people with disabilities would be expected to experience disadvantages in health and well-being compared with the general population. People with disabilities may experience lack of access to health services and medical care and may be considered at increased risk for various conditions.

Few data systems identify people with disabilities as a subpopulation. Disparities need to be identified to plan appropriate public health programs. Despite the pau-

city of data, some disparities between people with and without disabilities have been noted. These disparities include excess weight, reduced physical activity, increased stress, and less frequent mammograms for women over age 55 with disabilities.¹⁰

Opportunities

Health promotion programs that focus on improving functioning across a spectrum of diagnoses and a range of age groups are effective in reducing secondary conditions and outpatient physician visits among people with disabilities.^{11, 12, 13} For example, a focus on improving muscle tone, flexibility, and strength can accrue benefits for mobility-impaired people in wheelchairs and mobility-impaired people with arthritis.¹⁴ For people with communication disabilities and disorders, interventions can improve access to health-enhancement programs. People with sight impairments can have access to readable job applications, food labels, and medications. People with hearing impairments can have access to televised or videotaped exercise programs that are captioned or signed by interpreters depicted within an inset of a video screen. Often, the most effective interventions may be environmental rather than medical.

Many health promotion interventions already in place for the population at large may be easily adapted to the needs of people with disabilities. New strategies can be influenced by results from studies that describe risk factors for secondary conditions or protective factors against additional impairments. For example, the number of cases of secondary osteoporosis among able-bodied women and their range of bone mineral density deficits can be estimated using existing Federal data sets. The degree to which women exercise and ingest calcium or estrogen supplements also can be estimated, leading to measurements of the influence of both risk and protective factors associated with osteoporosis in the able-bodied population. Because women with mobility impairments experience an elevated risk for secondary osteoporosis at earlier ages, their risk factors, including diminished bone mineral density, and their potential protective factors, including optimal calcium or estrogen supplementation and types of exercise, become critically important epidemiologic parameters.^{15, 16} The results of investigations of secondary osteoporosis already influence health promotion strategies among able-bodied women. Similar investigations can augment the development of health promotion strategies among women with disabilities.

Current guidelines provide opportunity to design health promotion interventions targeting people with disabilities that accommodate ongoing evidence-based evaluation¹⁷ and demonstrate cost-effectiveness.^{18, 19} For example, clinical interventions that focus on appropriate and timely medical care can be equally accessible for people with and without disabilities. Mammography screening is recommended every 1 to 2 years, with or without annual clinical breast examination, for able-bodied women aged 50 to 69 years.¹⁸ This recommendation can also be adapted for women with disabilities. Clinical providers, however, must first rec-

ognize the reasons women with disabilities often refrain from seeking mammography services, such as the lack of adaptive equipment on mammography screening machines or unfamiliarity with needs of people with disabilities expressed by clinicians. Counseling to prevent injuries among all adults also is recommended. For example, men and women with disabilities, especially those with skeletal insufficiencies or calcium deficits, are at increased risk for fractures. Adding bone mineral screening and fitness counseling during clinical encounters may be beneficial in preventing injuries. In these ways, evidence-based health promotion and disease prevention programs can be developed, implemented, and evaluated to target the health and injury disparities between people with and without disabilities.

Health promotion interventions for people with disabilities, in the community, clinical settings, or elsewhere, should include culturally and linguistically appropriate elements.

Interim Progress Toward Year 2000 Objectives

Healthy People 2000 did not have a chapter specifically establishing health objectives for people with disabilities. However, there were some objectives targeting people with disabilities, including leisure-time physical activity, use of community support programs by people with severe mental disorders, treatment for depression, activity limitations associated with chronic conditions and back conditions, and receipt of recommended clinical preventive services. A progress review held in January 1997 showed that none of these specific objectives relevant to people with disabilities had been met,¹⁰ and parity with the nondisabled population will continue to be monitored.

People with disabilities reporting no leisure-time physical activity declined from the 1985 baseline of 35 percent to 29 percent in 1995, short of the target of 20 percent for 2000. In addition, the review noted several disparities. Forty percent of people with disabilities aged 20 years and older reported being overweight when compared with 35 percent of the general population and short of the goal of 25 percent; 49 percent of people aged 18 years and older with disabilities reported adverse health effects from stress compared with 34 percent of the general population; and clinical preventive services showed disparities for data on tetanus boosters (56 percent versus 59 percent for the general population), Pap tests (69 percent versus 77 percent of women aged 18 years and over in 1994), and breast exams and mammograms (50 percent versus 56 percent for women aged 50 years and over).

Note: Unless otherwise noted, data are from Centers for Disease Control and Prevention, National Center for Health Statistics, *Healthy People 2000 Review, 1998-99*.

Disability and Secondary Conditions

Goal: Promote the health of people with disabilities, prevent secondary conditions, and eliminate disparities between people with and without disabilities in the U.S. population.

Number	Objective
6-1	Standard definition of people with disabilities in data sets
6-2	Feelings and depression among children with disabilities
6-3	Feelings and depression interfering with activities among adults with disabilities
6-4	Social participation among adults with disabilities
6-5	Sufficient emotional support among adults with disabilities
6-6	Satisfaction with life among adults with disabilities
6-7	Congregate care of children and adults with disabilities
6-8	Employment parity
6-9	Children and youth with disabilities included in regular education programs
6-10	Accessibility of health and wellness programs
6-11	Assistive devices and technology
6-12	Environmental barriers affecting participation
6-13	Surveillance and health promotion programs

6-1. Include in the core of all relevant Healthy People 2010 surveillance instruments a standardized set of questions that identify “people with disabilities.”

Target: 100 percent.

Baseline: No Healthy People 2010 surveillance instruments include a standard set of questions that identify people with disabilities.

Target setting method: Total coverage.

Data source: CDC, NCEH.

The call for statistics on people with disabilities is longstanding and increasing. Various Federal agencies have attempted to collect these data in several research areas.²⁰ Two separate issues exist regarding data collection: the use of different operational survey definitions of disability and not collecting information from people with disabilities during surveys. None of the federally funded surveys attempting data collection is using the same definition of disability. This lack of standardization has made it difficult to (1) identify and include all individuals with a disability, (2) measure the nature and extent of disability in the United States, (3) assess the impact of various disabilities on the person’s ability to participate in society, (4) assess the extent of secondary conditions among people with disabilities, and (5) identify environmental barriers to participation and risk factors for poor health in this population. The issue of not including people with disabilities is reflected in the initial survey design. Some studies are not designed to target and analyze data on people with disabilities. People with disabilities could be included as a select population if, for example, the data collection method ensured appropriate access and outreach.

To remedy these gaps, a set of survey questions has been developed and tested to identify individuals with varying degrees of disability in terms of activity limitations.²¹ This short set of questions may be placed in the core of all Healthy People surveillance instruments that collect demographic data to include and standardize information on people with disabilities. On the basis of standardization and inclusion in the Nation’s disability data collection activities, the call for disability statistics may be satisfied. Once collected, these data will help government policymakers, consumers and advocates, researchers, and clinicians make better informed choices to promote the health status and well-being of people with disabilities.

6-2. Reduce the proportion of children and adolescents with disabilities who are reported to be sad, unhappy, or depressed.

Target: 17 percent.

Baseline: 31 percent of children and adolescents with disabilities were reported to be sad, unhappy, or depressed in 1997.

Target setting method: 45 percent improvement (parity with children and adolescents without disabilities in 1997).

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

Children and Adolescents Under Age 18 Years, 1997	Reported To Be Sad, Unhappy, or Depressed	
	With Disabilities	Without Disabilities*
	Percent	
TOTAL	31	17
Race and ethnicity		
American Indian or Alaska Native	DSU	DSU
Asian or Pacific Islander	DSU	13
Asian	DSU	16
Native Hawaiian and other Pacific Islander	DSU	DSU
Black or African American	DSU	16
White	31	17
Hispanic or Latino	32	16
Not Hispanic or Latino	30	17
Black or African American	DSU	17
White	31	18
Gender		
Female	32	16
Male	30	18
Family income level		
Poor	DSU	20
Near poor	31	17
Middle/high income	27	17

Children and Adolescents Under Age 18 Years, 1997	Reported To Be Sad, Unhappy, or Depressed	
	With Disabilities	Without Disabilities*
	Percent	
Geographic location		
Urban	27	17
Rural	39	16

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

*The total represents the target. Data for population groups by race, ethnicity, gender, socioeconomic status, and geographic location are displayed to further characterize the issue.

6-3. Reduce the proportion of adults with disabilities who report feelings such as sadness, unhappiness, or depression that prevent them from being active.

Target: 7 percent.

Baseline: 28 percent of adults aged 18 years and older with disabilities reported feelings that prevented them from being active, 1997 (age-adjusted to the year 2000 standard population).

Target setting method: 75 percent improvement (parity with adults without disabilities in 1997).

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

Adults Aged 18 Years and Older, 1997	Reported Feelings That Prevent Activity	
	With Disabilities	Without Disabilities*
	Percent	
TOTAL	28	7
Race and ethnicity		
American Indian or Alaska Native	22	15
Asian or Pacific Islander	30	7
Asian	DSU	6
Native Hawaiian and other Pacific Islander	DSU	14
Black or African American	31	8
White	28	7

Adults Aged 18 Years and Older, 1997	Reported Feelings That Prevent Activity	
	With Disabilities	Without Disabilities*
	Percent	
Hispanic or Latino	40	9
Not Hispanic or Latino	27	7
Black or African American	31	8
White	27	6
Gender		
Female	30	8
Male	26	6
Family income level		
Poor	38	13
Near poor	30	10
Middle/high income	21	6
Education level (aged 25 years and older)		
Less than high school	34	10
High school graduate	29	7
At least some college	25	5
Geographical location		
Urban	29	7
Rural	26	6

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

Note: Age adjusted to the year 2000 standard population.

*The total represents the target. Data for population groups by race, ethnicity, gender, socioeconomic status, and geographic location are displayed to further characterize the issue.

Children and adults with disabilities and their families face issues of coping, adapting, adjusting, and learning to live well with the disability—a dynamic, on-going process. Good mental health, including refusal to internalize the social stigma of disability and developing a positive attitude and strong self-esteem, is a key ingredient to overcoming these issues.²² Improving mental health status among people with disabilities and their families will help address psychological barriers and enhance their ability to participate fully in society.²³

6-4. Increase the proportion of adults with disabilities who participate in social activities.

Target: 100 percent.

Baseline: 95.4 percent of adults aged 18 years and older with disabilities participated in social activities in 1997 (age adjusted to the year 2000 standard population).

Target setting method: Total participation (parity with adults without disabilities in 1997).

Data source: National Health Interview Survey (NHIS), CDC, NCHS.

Adults Aged 18 Years and Older, 1997	Participation In Social Activity	
	With Disabilities	Without Disabilities*
	Percent	
TOTAL	95.4	100.0
Race and ethnicity		
American Indian or Alaska Native	87.4	100.0
Asian or Pacific Islander	99.6	100.0
Asian	99.5	100.0
Native Hawaiian and other Pacific Islander	100.0	100.0
Black or African American	95.0	99.8
White	95.6	100.0
Hispanic or Latino	93.9	100.0
Not Hispanic or Latino	95.5	100.0
Black or African American	95.0	99.8
White	95.7	100.0
Gender		
Female	95.2	99.9
Male	95.7	100.0
Family income level		
Poor	93.1	99.9
Near poor	95.8	99.9
Middle/high income	96.5	100.0

Adults Aged 18 Years and Older, 1997	Participation In Social Activity	
	With Disabilities	Without Disabilities*
	Percent	
Education level (aged 25 years and older)		
Less than high school	94.1	99.9
High school graduate	94.8	99.9
At least some college	96.0	100.0
Geographic location		
Urban	95.3	100.0
Rural	95.6	99.9

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Note: Age adjusted to the year 2000 standard population.

*The total represents the target. Data for population groups by race, ethnicity, gender, socioeconomic status, and geographic location are displayed to further characterize the issue.

People with disabilities report significantly lower levels of social participation compared with people without disabilities.²⁴ Participating in social activities routinely requires personal interaction with the environment, a component of life that is vital to the well-being of all humanity. ICIDH-2, the *International Classification of Functioning and Disability*, highlights the importance of participating in social activities as a measurable outcome of living well with a disability.¹ The ICIDH-2 framework indicates that the environment should be examined as a barrier to participation.

Social participation can include activities such as volunteering, shopping, going to the movies, or attending sporting events. Targeting increased participation in regular social activities such as traveling, socializing with friends and family, attending church or community events, and voting can result in improved functional status and well-being.

6-5. Increase the proportion of adults with disabilities reporting sufficient emotional support.

Target: 79 percent.

Baseline: 70 percent of adults aged 18 years and older with disabilities reported sufficient emotional support in 1998 (data from 10 States and the District of Columbia).

Target setting method: 13 percent improvement (parity with adults without disabilities in 1998).

Data source: Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

Adults Aged 18 Years and Older, 1998*	Reported Sufficient Emotional Support	
	With Disabilities	Without Disabilities†
	Percent	
TOTAL	70	79
Race and ethnicity		
American Indian or Alaska Native	56	73
Asian or Pacific Islander	44	70
Asian	DSU	DSU
Native Hawaiian and other Pacific Islander	DSU	DSU
Black or African American	53	68
White	74	82
Hispanic or Latino	43	69
Not Hispanic or Latino	72	80
Black or African American	DNA	DNA
White	DNA	DNA
Gender		
Female	70	79
Male	70	79
Family income level		
Poor	60	69
Near poor	59	69
Middle/high income	76	81
Education level (aged 25 years and older)		
Less than high school	57	70
High school graduate	74	76
At least some college	72	80

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

*Data are from 10 states and the District of Columbia.

†The total represents the target. Data for population groups by race, ethnicity, gender, socioeconomic status, and geographic location are displayed to further characterize the issue.

Emotional support often is derived from a person's social supports. Two hypotheses suggest that social supports help a person cope with stress and that supportive relationships help reduce a person's level of disease in various life situations.²⁵ With the information gained by monitoring the personal perspective, the United States may better meet the needs of people with disabilities.

6-6. Increase the proportion of adults with disabilities reporting satisfaction with life.

Target: 96 percent.

Baseline: 87 percent of adults aged 18 years and older with disabilities reported satisfaction with life in 1998 (data from 10 States and the District of Columbia).

Target setting method: 10 percent improvement (parity with adults without disabilities in 1998).

Data source: Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

Adults Aged 18 Years and Older, 1998*	Reported Satisfaction With Life	
	With Disabilities	Without Disabilities†
	Percent	
TOTAL	87	96
Race and ethnicity		
American Indian or Alaska Native	81	94
Asian or Pacific Islander	82	97
Asian	DSU	DSU
Native Hawaiian and other Pacific Islander	DSU	DSU
Black or African American	83	92
White	88	96
Hispanic or Latino	81	94
Not Hispanic or Latino	88	86
Black or African American	DNA	DNA
White	DNA	DNA
Gender		
Female	88	95
Male	87	96

Adults Aged 18 Years and Older, 1998*	Reported Satisfaction With Life	
	With Disabilities	Without Disabilities†
	Percent	
Family income level		
Poor	78	90
Near poor	81	93
Middle/high income	93	96
Education level (aged 25 years and older)		
Less than high school	83	94
High school graduate	87	95
At least some college	88	95

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*Data are from 10 states and the District of Columbia.

†The total represents the target. Data for population groups by race, ethnicity, gender, socioeconomic status, and geographic location are displayed to further characterize the issue.

Satisfaction with life is associated with the more general term quality of life, which is a personal evaluation of one's own position in numerous dimensions of life, including physical, emotional, social, spiritual, level of independence, and environmental support.²⁶ Monitoring the life satisfaction of people with disabilities, as well as that of the broader population, allows an opportunity to evaluate society's progress in accommodating the needs of people with disabilities.

6-7. Reduce the number of people with disabilities in congregate care facilities, consistent with permanency planning principles.

Objective	Reduction in People With Disabilities in Congregate Care Facilities	1997 Baseline	2010 Target
6-7a.	Adults aged 22 years and older in 16 or more bed congregate facilities	93,362	46,681
6-7b.	Persons aged 21 years and under in congregate care facilities	24,300	0

Target setting method: For adults, 50 percent improvement; for persons aged 21 years and under, total elimination.

Data source: Survey of Residential Facilities, University of Minnesota.

Data for population groups currently are not collected.
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Many people with activity limitations or cognitive impairments need ongoing and long-term assistance, yet some do not require institutional care.²⁷ From the 1970s through the 1990s, States began reducing the size of and closing State institutions that served people with mental retardation or developmental disabilities. This social, political, and economic movement resulted in dramatic growth in the total number of individuals served in community residential settings—from 5,000 in 1960 to 255,117 in 1996.^{28, 29} This movement, coupled with increases in life expectancy and an expanding elderly population, resulted in the development of several community-based and in-home assistance programs, such as home-delivered meals, hospice, and homemaker and home-health services. The goal to increase home and community-based care will broaden health and lifestyle choices for people with disabilities and their families.³⁰

Much of this expansion in community services is funded through Medicaid Home and Community-Based Services (HCBS) Waiver Program, a Federal-State partnership authorized in 1981 under Title XIX of the Social Security Act. Between 1990 and 1997, the HCBS Program demonstrated a 25.8 percent increase in benefits per person.²⁹ Despite this dramatic growth to support home and community-based care, in 1993, only 11 percent of long-term Medicaid expenditures and 5.3 percent of total Medicaid expenditures went toward community-based care.³¹ The other sources of support for community-based long-term care are Medicare, Title III of the Older Americans Act, and the Social Services Block Grant.³¹

6-8. Eliminate disparities in employment rates between working-aged adults with and without disabilities.

Target: 82 percent.

Baseline: 52 percent of adults with disabilities aged 21 through 64 years were employed in 1994-95.

Target setting method: 58 percent improvement (parity with adults without disabilities in 1994-95).

Data source: Survey of Income and Program Participation (SIPP), U.S. Department of Commerce, Bureau of the Census.

Adults Aged 21 through 64 Years, 1994-95	Employment of People With Disabilities	Employment of People Without Disabilities*
	Percent	
TOTAL	52	82
Race and ethnicity		
American Indian or Alaska Native	41	77
Asian or Pacific Islander	48	78
Asian	DNC	DNC
Native Hawaiian and other Pacific Islander	DNC	DNC
Black or African American	37	77
White	DNA	DNA
Hispanic or Latino	45	76
Not Hispanic or Latino	DNA	DNA
Black or African American	DNA	DNA
White	57	84
Gender		
Female	46	75
Male	60	90
Education level		
Less than high school	34	69
High school graduate	54	81
At least some college	63	83

DNA = Data have not been analyzed. DNC = Data are not collected. DSU = Data are statistically unreliable.

*The total represents the target. Data for population groups by race, ethnicity, gender, and socioeconomic status are displayed to further characterize the issue.

The ability to work has implications for economic and social self-sufficiency, for full inclusion and integration into society, and for personal self-esteem. Work and disability are understood best within the context of a person's abilities and the role of accommodation, accessibility, and legal mandates. The Presidential Task Force on Employment of Adults with Disabilities emphasized the need for a coordinated and aggressive national policy to address the many components of work and disability.³² Changes in economic policies and benefits underscore the need to continue to examine and address the structural, social, and psychological deterrents to work for some persons with disabilities.

In 1994-95, SIPP employment rates varied depending on degree of disability. For persons aged 21 through 64 years with no disability, the rate was 82.1 percent, whereas those with a nonsevere disability had a rate of 76.9 percent, and those with a severe disability had a rate of 26.1 percent. Analyses of rates by gender indicate similar patterns.² Moreover, employment patterns for persons with disabilities mirror general social patterns of employment rates for age, race, and ethnicity.³³ Education has a positive association with employment for all people, although the association is strongest for adolescents and adults with a "work disability."

6-9. Increase the proportion of children and youth with disabilities who spend at least 80 percent of their time in regular education programs.

Target: 60 percent.

Baseline: 45 percent of children and youth with disabilities aged 6 to 21 years spent at least 80 percent of their time in regular education programs in 1995-96 school year.

Target setting method: 33 percent improvement. (Better than the best will be used when data are available.)

Data source: Data Analysis System (DANS), U.S. Department of Education, Office of Special Education.

Data for population groups currently are not analyzed.

This objective aims to improve the well-being of students with disabilities by encouraging academic and learning opportunities and nonacademic social and emotional experiences that can facilitate normal growth and development, postsecondary educational attainment, independent living skills, and economic participation as adults. Serving students with disabilities in regular nonspecial education classrooms is a concern that cuts across the goals of many Federal agencies. The current target of the Office of Special Education and Rehabilitative Services is that 60 percent of children and youth with disabilities aged 6 through

21 years will be reported by the States as being served in the regular education classroom at least 80 percent of the time. In support of the target, the 1997 Amendments to the Individuals with Disabilities Education Act states that “to the maximum extent appropriate, children and youth with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled.”³⁴

6-10. (Developmental) Increase the proportion of health and wellness and treatment programs and facilities that provide full access for people with disabilities.

Potential data source: National Independent Living Centers Network.

For people with disabilities to have the opportunity for healthy lives, both physically and emotionally, programs and facilities that offer wellness and treatment services must be fully accessible. Effective enforcement of the Americans with Disabilities Act can improve services for people with disabilities and help prevent secondary disabilities.

6-11. (Developmental) Reduce the proportion of people with disabilities who report not having the assistive devices and technology needed.

Potential data source: National Health Interview Survey (NHIS), CDC, NCHS.

In 1990, a one-time survey showed that 2.5 million people said they needed assistive technology that they did not have.³⁵ The inability to pay for such technology was the main reason given for the unmet need. Assistive technology can be critical in the lives of people with disabilities; thus, technology need, availability, and use must be studied.³⁶ Technology can aid the independence and self-sufficiency of people with disabilities and can enable people to work, attend school, and participate in community life. Without assistive technology, people with disabilities may become dependent and isolated.

6-12. (Developmental) Reduce the proportion of people with disabilities reporting environmental barriers to participation in home, school, work, or community activities.

Potential data source: Behavioral Risk Factor Surveillance System (BRFSS), CDC, NCCDPHP.

The focus on measuring the environmental impact on people with disabilities echoes the underlying theme of the disability rights movement and the ADA.³⁷ Both argue that the most important outcome for persons with disabilities—in fact, for all persons in the United States—is their full participation as active, involved, and

productive members of society. Indeed, this participation is the implicit outcome for the overarching Healthy People themes to achieve a healthier life and eliminate disparities.

Full participation cannot be achieved without eliminating environmental barriers such as architectural barriers, organizational policies and practices, discrimination, and social attitudes. Thus, public health agencies need to measure not only the nature and extent of disability in the United States, but also the extent to which environmental factors enhance or impede that participation.

6-13. Increase the number of Tribes, States, and the District of Columbia that have public health surveillance and health promotion programs for people with disabilities and caregivers.

Target and baseline:

Objective	Increase in Public Health Surveillance and Health Promotion Programs for People With Disabilities and Caregivers	1999 Baseline	2010 Target
		Number	
6-13a.	States and the District of Columbia	14	51
6-13b.	Tribes	Developmental	

Target setting method: Total coverage.

Data sources: Tribal, State, and District of Columbia reports, Office on Disability and Health, CDC.

The needs of people with disabilities and caregivers should be addressed by public health activities. In a telephone survey, 23 percent of all U.S. households included at least one caregiver.³⁸ While not all people with disabilities are dependent on the services of a nonpaid (usually a family member) or paid caregiver, meeting the needs of those who benefit from personal assistance cannot be easily separated from the needs of people who provide assistance.³⁹ Whether caring for infants, children, or adults with disabilities or for the increasing number of people who become activity-limited as they grow older, the caregiver is an important health component.⁴⁰

Related Objectives From Other Focus Areas

1. Access to Quality Health Services

- 1-1. People with health insurance
- 1-4. Source of ongoing care
- 1-5. Usual primary care provider

- 1-6. Difficulties or delays in obtaining health care
- 1-16. Pressure ulcers among nursing home residents

2. Arthritis, Osteoporosis, and Chronic Back Conditions

- 2-3. Personal care limitations
- 2-5. Employment rates
- 2-8. Arthritis education
- 2-11. Activity limitations due to chronic back conditions

3. Cancer

- 3-9. Sun exposure
- 3-11. Pap tests
- 3-13. Mammograms

5. Diabetes

- 5-1. Diabetes education
- 5-2. Prevent diabetes
- 5-3. Reduce diabetes
- 5-4. Diagnosis of diabetes
- 5-9. Foot ulcers
- 5-10. Lower extremity amputations

7. Educational and Community-Based Programs

- 7-1. High school completion
- 7-3. Health-risk behavior information for college and university students
- 7-6. Participation in employer-sponsored health promotion activities
- 7-11. Culturally appropriate community health promotion programs
- 7-12. Older adult participation in community health promotion activities

9. Family Planning

- 9-2. Birth spacing
- 9-4. Contraceptive failure
- 9-7. Adolescent pregnancy

12. Heart Disease and Stroke

- 12-1. Coronary heart disease (CHD) deaths
- 12-7. Stroke deaths
- 12-9. High blood pressure
- 12-10. High blood pressure control
- 12-11. Action to help control blood pressure
- 12-12. Blood pressure monitoring
- 12-13. Mean total cholesterol levels
- 12-14. High blood cholesterol levels
- 12-15. Blood cholesterol screening

14. Immunization and Infectious Diseases

- 14-22. Universally recommended vaccination among children aged 19 to 35 months
- 14-24. Fully immunized children aged 19 to 35 months
- 14-26. State/community population-based immunization registries for children
- 14-29. Flu and pneumococcal vaccination of high-risk adults

16. Maternal, Infant, and Child Health

- 16-1. Fetal and infant deaths
- 16-2. Child deaths
- 16-4. Maternal deaths
- 16-6. Prenatal care
- 16-9. Cesarean deliveries
- 16-10. Low birth weight and very low birth weight
- 16-11. Preterm birth
- 16-13. Infants put to sleep on their backs
- 16-16. Optimum folic acid
- 16-17. Prenatal substance exposure
- 16-19. Breastfeeding
- 16-21. Sepsis among infants with sickle cell disease
- 16-23. Service systems for children with special health care needs

17. Medical Product Safety

- 17-3. Provider review of medications taken by patients
- 17-4. Receipt of useful information from pharmacies
- 17-5. Receipt of counseling from prescribers and dispensers

18. Mental Health and Mental Disorders

- 18-4. Employment of persons with serious mental illness
- 18-5. Treatment for adults with mental disorders

19. Nutrition and Overweight

- 19-1. Healthy weight in adults
- 19-2. Obesity in adults
- 19-3. Overweight or obesity in children and adolescents
- 19-4. Growth retardation in children
- 19-5. Fruit intake
- 19-6. Vegetable intake
- 19-7. Grain product intake
- 19-8. Saturated fat intake
- 19-9. Total fat intake
- 19-10. Sodium intake
- 19-11. Calcium intake
- 19-12. Iron deficiency in young children and in females of childbearing age
- 19-13. Anemia in low-income pregnant females

19-17. Nutrition counseling for medical conditions

19-18. Food security

20. Occupational Safety and Health

20-1. Work-related injury deaths

20-2. Work-related injuries

20-3. Overexertion or repetitive motion

20-4. Pneumoconiosis deaths

20-6. Work-related assault

21. Oral Health

21-1. Dental caries experience

21-2. Untreated dental decay

21-3. No permanent tooth loss

21-4. Complete tooth loss

21-5. Periodontal disease

21-6. Early detection of oral and pharyngeal cancer

21-8. Dental sealants

21-10. Use of the oral health care system

21-13. Use of the oral health care system by residents of long-term care facilities

22. Physical Activity and Fitness

22-1. No leisure-time physical activity

22-2. Moderate physical activity

22-3. Vigorous physical activity

22-4. Muscular strength and endurance

22-5. Flexibility

23. Public Health Infrastructure

23-4. Data for all population groups

23-5. Data for Leading Health Indicators, Health Status Indicators, and Priority Data Needs at Tribal, State, and local levels

24. Respiratory Diseases

24-1. Deaths from asthma

24-5. School or work days missed

24-6. Patient education

26. Substance Abuse

26-5. Alcohol-related emergency department visits

27. Tobacco Use

27-1. Adult tobacco use

27-5. Smoking cessation by adults

28. Vision and Hearing

28-10. Vision rehabilitation services and devices

28-12. Otitis media

28-13. Rehabilitation hearing impairment

Terminology

(A listing of all abbreviations and acronyms used in this publication appears in Appendix K.)

Assistive devices and technology: Under the Assistive Technology Act of 1998 (P.L.105-394), “any item, piece of equipment, or product system, whether acquired commercially, modified or customized, that is used to increase, maintain, or improve the functional capabilities of individuals with disabilities.”

Activity limitations: Problems in a person’s performance of everyday functions such as communication, self-care, mobility, learning, and behavior.

Congregate care facilities: An out-of-home facility that provides housing for people with disabilities in which rotating staff members provide care—16 or more beds when referring to adults and any number of beds when referring to children and youth under age 21 years. Congregate care excludes foster care, adoptive homes,

residential schools, correctional facilities, and nursing facilities.

Disability: The general term used to represent the interactions between individuals with a health condition and barriers in their environment.

Environmental factors: The policies, systems, social contexts, and physical barriers or facilitators that affect a person’s participation in activities, including work, school, leisure, and community events.

Health promotion: Efforts to create healthy lifestyles and a healthy environment to prevent medical and other secondary conditions, such as teaching people how to address their health care needs and increasing opportunities to participate in usual life activities.

ICIDH-2: *International Classification of Functioning and Disability*, the World Health Organization’s conceptual and coding framework for describing a person’s functioning and disability associated with his

ated with his or her health condition.

People with disabilities: People identified as having an activity limitation or who use assistance or who perceive themselves as having a disability.

Permanency planning: A planning process undertaken by public and private agencies on behalf of a child with developmental disabilities and their families with the explicit goal of securing a permanent living arrangement that enhances the child’s growth and development.⁴¹

Secondary conditions: Medical, social, emotional, family, or community problems that a person with a primary disabling condition likely experiences.

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